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IS 10527 (1983): Pressure Ranges for Compressed Air System for Inland Vessels [TED 18: Inland, Harbour Crafts and Fishing Vessels]

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“Knowledge is such a treasure which cannot be stolen”





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Indian Standard

## SPECIFICATION FOR PRESSURE RANGES FOR COMPRESSED AIR SYSTEM FOR INLAND VESSELS

**1. Scope** — This standard specifies ranges of pressure in starting air systems and compressed air systems of vessels for inland navigation.

### 2. Definitions

**2.1 Starting Air Pressure** — The working pressure for which the air receiver and all components in the starting air system are designed.

**Note** — When charged to this pressure, the air receiver shall be capable of providing at least the required number of starts of a cold engine before being recharged.

**2.2 Initial Pressure** — The highest working pressure for which the starting air system is calculated.

**Note** — At this pressure, the air supply in the air receivers provides the required number of starts of a cold engine.

**3. Pressure Ranges** — Pressure ranges for different systems shall be as given in Tables 1 and 2.

**TABLE 1 STARTING AIR PRESSURE AND INITIAL PRESSURE IN AIR RECEIVERS**

| kPa   |
|-------|
| 2 000 |
| 3 000 |

**TABLE 2 PRESSURE ENSURING THE OPERATION OF EQUIPMENT**

| Principal Series | Additional Series       |
|------------------|-------------------------|
| kPa              | kPa                     |
| 100              | 100<br>125              |
| 150              | 150<br>200              |
| 250              | 250<br>300              |
| 400              | 400<br>500              |
| 600              | 600<br>700<br>800       |
| 1000             | 1 000<br>1 200          |
| 1500             | 1 500<br>2 000<br>2 500 |

**Note 1** — Pressure values required for the operation of equipment are selected from the principal series. The additional series is used in exceptional cases only.

**Note 2** —  $100 \text{ kPa} \approx 1 \text{ kgf/cm}^2$ .

## EXPLANATORY NOTE

The pressure range for compressed air systems is intended for selection of equipment, machinery and pipeline elements of systems providing operation of the following equipment: blast signals, pneumatic tanks, windshield wipers, towing winch brakes, coupling locks, pneumatic control of main engines, air supply for domestic requirements, blowing kingston valve boxes, casting off towing hooks, releasing anchors, etc.

The pressure range for starting air systems is intended for selection of equipment, machinery and pipeline elements of starting air systems for main and auxiliary engines or diesel generators, such as air receivers, compressors, fittings, etc.

This Indian Standard has been formulated with the object of unifying the equipment, machinery and pipeline elements of compressed air systems of vessels for inland navigation.

This Indian Standard has been based on ISO 3948-1977 Shipbuilding — Inland vessels — Compressed air systems — Pressure ranges, issued by International Organization for Standardization (ISO).